ELSEVIER

Contents lists available at ScienceDirect

## Global Environmental Change

journal homepage: www.elsevier.com/locate/gloenvcha



# Adaptation as a political arena: Interrogating sedentarization as climate change adaptation in Central Vietnam



Lily Salloum Lindegaard<sup>1</sup>

Danish Institute for International Studies, Østbanegade 117, 2100 KBH Ø, Denmark

#### ARTICLE INFO

Keywords:
Climate change adaptation
Problematics of government
Governance
Sedentarization
Resettlement
Vietnam

#### ABSTRACT

Framings of climate change adaptation are increasingly being contested with implications for how adaptation is understood and carried out. Global framings are seen as producing a universalizing, technocratic domain, and an increasing body of literature de-frames these, highlighting their inherent assumptions and biases and arguing for better situating adaptation within particular historical and power dynamics. This article takes the logical next step, proposing a reframing of climate change adaptation as a political arena, and finds that particular framings determine the scope, targets and tools of adaptation. It uses a problematics of government approach, illustrated through the case of mandatory sedentarization of boat dwellers in Vietnam, which government officials present as climate change adaptation. This reframing historicizes and politicizes current adaptation, demonstrates how vulnerability is produced by political interventions and identifies how emic, rather than global, political rationalities heavily frame current adaptation initiatives. By contrasting it with accounts of the same sedentarizations that cleave more closely to dominant adaptation framings, the article illustrates how reframing adaptation as a political arena provides a more accurate basis upon which to engage with adaptation as an impetus and as intervention. These findings caution against drawing uncritically on dominant framings of climate change adaptation.

### 1. Introduction

Global climate change has been gaining attention for years. More recently, climate change adaptation – responding to impacts of climate change – has had a rising profile in fora from international institutions and negotiations to local governance to national policy and planning. Yet predominant global framings, linked to authoritative institutions such as the Intergovernmental Panel on Climate Change (IPCC) and World Bank, are increasingly criticized as depoliticizing and universalizing (Pelling, 2011; Swyngedouw, 2013; Taylor, 2015). They present adaptation as "adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities" (IPCC, 2007).

Critical responses fall roughly within two camps: 'reformist adaptation' which works within existing political and economic systems and 'transformational adaptation' which fundamentally challenges the premises of adaptation. According to a literature review of key climate change journals, the first amounts to 27% of adaptation literature. When including mainstream biophysical framings to adaptation, the percentage of adaptation approaches working within existing systems skyrockets to 97%. Such framings are necessarily limiting (Bassett and

Fogelman, 2013). This article follows in the steps of transformational, much more critical responses – the remaining 3%. Authors working along these lines attempt to de-frame the dominant narrative of adaptation, arguing that the endeavor of adaptation is not self-evident. Rather, dominant framings of adaptation are built on particular ontologies closely tied to neoliberal and modernist thought which inherently shape approaches to adaptation.

This article takes the logical next step, proposing an approach to reframing climate change adaptation in continuation of emerging scholarship in this vein (Eriksen et al., 2015). Specifically, I propose viewing adaptation as a political arena, building on recent work grounded in adaptation practice (Artur and Hilhorst, 2012; Funder et al., 2018) and theory (Eguavoen et al., 2013). To operationalize this, I draw on a 'problematics of government' approach (Rose and Miller, 1992), which seeks to "diagnose an array of lines of thought, of will, of intervention" (Rose, 1999, p. 21) that frame spheres of government, including that of climate change adaptation. 'Government' in this account encompasses the actions by authorities of various sorts to order and regulate. It brings attention to the specific rationales that frame adaptation as a field for intervention, taking this not as a pre-given and universal field, but one framed by particular epistemological and moral

E-mail address: lili@diis.dk.

<sup>&</sup>lt;sup>1</sup> Present address: University of Copenhagen, Department of Food and Resource Economics, Rolighedsvej 25, DK-1958 Frederiksberg C, Denmark.

imperatives. The scope, targets and tools of adaptation are demarcated through this framing. Examining its construction and origins is thus crucial for understanding what adaptation is and how it is carried out.

In the following pages, I offer further discussion on current adaptation literature and my approach to adaptation as a political arena. I then illustrate my approach through the case of the sedentarizations of Sampan dwellers – those living on flat-bottomed Sampan boats – in Vietnam, an intervention presented as adaptation by local authorities. I focus on the role of government officials in developing and implementing these interventions to understand how powerful global actors and political authorities frame adaptation. I initially present the case through a dominant adaptation framing and subsequently expound on the case through a problematics of government approach, excavating the political and historical antecedents of current adaptation. Finally, I offer a discussion on these disparate perspectives, drawing also on other accounts of the sedentarizations to illustrate the implications of particular adaptation framings.

I propose using the problematics of government approach to address multiple fundamental critiques of dominant adaptation framings. I find that, first, it historicizes and politicizes current programs of adaptation and the contexts into which they enter. Second, by examining how current conditions are fashioned over time, it demonstrates how vulnerability is produced by particular political interventions. Third, it identifies how emic political rationalities frame current adaptation initiatives, rather than assuming that global approaches inform adaptation practice. More broadly, it shifts our view of adaptation, allowing us to see framing as an act and the scope, targets and tools of adaptation as produced rather than self-evident. This exercise illustrates how activities labelled as adaptation can in practice be populated by a range of interests and ideas that have very little to do with either climate change or adaptation to it. By reframing adaptation, we are able to view these tendencies, examine the actual dynamics of adaptation implementation and imagine adaptation differently. Finally, the case suggests that utilizing 'climate change adaptation' uncritically as an academic concept is a mistake. To do so ignores that it is a produced concept with particular ontological underpinnings, resulting in narrow visions of and possibilities for adaptation in policy and practice.

## 2. Adaptation framings

Dominant global framings of climate change adaptation, such as the authoritative IPCC definition provided above, have been criticized as universalizing and technocratic (Swyngedouw, 2013; Taylor, 2015). They draw heavily on natural hazards literature of the 1970s and 1980s and contribute to a framework of adaptation as an external environmental shock to a separate, closed society (Bassett and Fogelman, 2013). They generally ignore the coproduction of social and environmental spheres, neatly excluding the production of vulnerability, the determinacy of human activity to how climate change impacts an area and indeed the production of climate change as an anthropogenic phenomenon at all (Taylor, 2015). This simultaneously "forestalls the articulation of divergent, conflicting, and alternative trajectories of future environmental possibilities and assemblages" (Swyngedouw, 2013, p. 5). In short, dominant global framings of adaptation largely ignore how current political and economic systems contribute to climate change and its impacts and thereby precludes fundamental challenges to these systems.

Instead, it proceeds from the managerial imperative to "establish clear boundaries upon which to stabilize policy recommendations" (Taylor, 2015, p. 65), which is at once terribly banal and politically potent. It emphasizes agency over structure and is generally technocratic and top-down. These characteristics lead to a conservative policy approach appealing to authorities of all stripes and depoliticization of hazards and their impacts (Bassett and Fogelman, 2013). Its culmination is the production of a field of governance that engages with topical questions of the technologies and timings of adaptation initiatives

(Swyngedouw, 2013), shoring up existing political and economic systems "in the face of supposedly exogenous threats" (Taylor, 2014, p. 63).

Critical perspectives respond by seeking to politicize, situate and historicize. Social vulnerability perspectives examine the socio-political and economic circumstances shaping people's vulnerability, or exposure to climate change impacts (Marino and Ribot, 2012; Ribot, 2010), and how this is produced, reinforced and sometimes challenged (Eriksen et al., 2015). Others seek to historicize and politicize particular programs of adaptation and their impacts. Among these are those focusing particularly on resettlement, illustrating how resettlement as an adaptation solution can exacerbate households' vulnerability to climate change (Rogers and Xue, 2015) reproduce existing social differentiation (Artur and Hilhorst, 2012) and provide an arena for institutional struggles over authority (Funder et al., 2018). Yet even while leveling critique, the vast majority of current literature works within the dominant framework presented above (Bassett and Fogelman, 2013). Few call into question the premise of adaptation, the "disarmingly simple" concept that "in the face of external environmental stimuli such as climatic change, everything and everyone must adapt, materially and culturally, or face unpalatable consequences" (Taylor, 2015, p. 56). One analysis suggests that only 3% of articles on climate change adaptation envision adaptation as requiring transformative socio-economic change (Bassett and Fogelman, 2013). Many critical voices thus seek reflexivity within the bounds of the concept they attempt to challenge. This necessarily limits their critique and the prospects for other visions and understandings of adaptation in literature and practice.

Therefore, I put forward a 'problematics of government' approach (Rose and Miller, 1992) to re-frame climate change adaptation from a "techno-managerial" (Taylor, 2015, p. 64) field to a political arena. Political in this sense refers to the task of governing and its inherent exercise of power. This follows in the footsteps of emerging literature that describes adaptation as a political or social arena (Artur and Hilhorst, 2012; Eguavoen et al., 2013; Funder et al., 2018), acknowledging that adjusting to and managing climate change impacts involves exercising authority over people, societies and economies as well as environments, and is thus inherently political (Eriksen et al., 2015). This consideration of adaptation as part of the activity of governance is supported by emerging findings that broader governance strategies and goals are expressed in adaptation efforts (Arnall, 2014; Funder et al., 2018). The problematics of government approach, drawing on the work of Foucault (Foucault, 1991), examines the intentionality of governing and the spheres which are constituted through these intentions, for example, the 'will to improve' and the resulting conservation/development nexus as described by Li (2007). It allows us to consider how a particular arena of government is delineated, whom or what this includes or disregards, and which types and tools of intervention it entails. By politicizing and historicizing, it shares commonalities with a social vulnerability approach. Yet rather than examining how climate change impacts are felt through "social and political-economic drivers of vulnerability" (Ribot, 2010, p. 48), the article seeks to understand how processes similar to those shaping vulnerability also delineate adaptation as a field for intervention. That is, it interrogates how political authorities frame adaptation and ensuing approaches to and types of adaptation interventions. This enables us to get at the fundamental questions driving debates on climate change adaptation, such as "What should we adapt to? Who or what should adapt? And how should adaptation occur?" (Pelling, 2011, p. 13).

Analyses of the exercise of political power in the problematics of government approach consider the rationales, programs and techniques of governing. In this article I focus on the rationales of governing, or political rationalities, which allow us to view the framing of the political arena of climate change adaptation. Political rationalities are the regularities which emerge in political discourse. Among other things, they describe the "ideals or principles to which government should be directed" (Rose and Miller, 1992, p. 179) and "fitting powers and

duties" (Rose and Miller, 1992, p. 178) to achieve them. In other words, they provide the 'lines of will' which frame a political arena around a problem. They determine what is included in the bounds of the arena and what is excluded. They provide both the intention undergirding intervention – the 'ideals' – as well as the proper capacities to be applied to meeting these goals – the 'fitting powers'. In climate change adaptation, they are evident in what or whom is seen to require adaptation and the forms that adaptation should take.

In the following section, I demonstrate this approach in the case of sedentarization of Sampan dwellers as climate change adaptation. This case plays out in Vietnam, a country whose political pedigree is very different from the liberal regimes upon which this theorizing (Rose, 1999; Rose and Miller, 1992) is based. The article's focus on the framing of adaptation through exercise of political power entails a focus on public authorities. In the case of Vietnam, this means looking squarely at the role of government officials in Sampan settlements, despite the emphasis of the theory on disparate sources of authority and regulation. I do not seek to overemphasize the role of government authorities, but to represent the realities of the exercise of political power in Vietnam, in a country with a tightly circumscribed academia<sup>2</sup> and civil society (Zink, 2013, p. 46–47, 47).

Particularly, the article considers the role of subnational government officials and the political rationalities they draw on in shaping adaptation. This reflects a growing understanding of the central role of such officials in the exercise of political power (Bierschenk and de Sardan, 2014; Gupta, 2012; Lipsky, 2010) and in the formulation and implementation of climate change adaptation (Agrawal, 2010). The rationalities of these officials, including how they view the Sampan dwellers to be moved, are therefore a central focus of the article. Accounts from sedentarized Sampan dwellers are also included. Due to the limitations of research access in Vietnam (see for instance Scott et al., 2006) as well as the focus of this article on political authorities' framing of adaptation, these accounts are supplementary. They are not representative of all who have been moved, but provide some perspective from those whose lives have fundamentally been altered through sedentarization as adaptation.<sup>3</sup>

### 3. Adaptation practice

Through the course of three rounds of fieldwork from 2013-15 totaling about 6 months, I conducted roughly 80 interviews in Thua Thien Hue Province, or Hue Province, of Central Vietnam to understand subnational officials' perspectives and roles in formulating and implementing climate change adaptation. Interviews focused on all levels of sub-national government (province, district, commune), supplemented by interviews of those targeted or affected by adaptation programs, including settlement schemes. This included the Sampan dwellers of Tam Giang Lagoon, which runs parallel to the provincial coastline. I also conducted a document and policy review of climate change adaptation policies and plans, as well as plans from other relevant sectors. The case of sedentarizations presented below is based on this research. I initially present the intervention through the lens of the dominant framing of climate change adaptation - as a response to an external climatic threat. I then reexamine it through the problematics of government approach, illustrating how this drastically expands our understanding of the historical and political origins of current adaptation interventions and whom they address and how.

#### 3.1. Sedentarization as adaptation

In Hue Province, people have lived on the water in Sampan boats for hundreds of years (Bertrand, 1995; Vo and Nguyen, 2000). This population living on boats was in the low tens of thousands around the turn of the century (Bertrand, 1995; United Nations in Viet Nam, 2014; Vo and Nguyen, 2000), though many have been settled in recent sedentarizations (Sampan Interviews, 2015). Conditions for Sampan dwellers is poor. They generally live in poverty, lack access to basic services including health care and education (Vo and Nguyen, 2000), and typically do not see education as offering tangible opportunities; this is compounded by their lifestyle of mobility and the expectation that children work to support the household, which makes it difficult for children to attend school regularly (Bertrand, 1995). Sampan households subsist on fishing plus some supplementary livelihoods (Sampan Interviews, 2015). Their possessions generally consist of their boats, fishing gear, and little else of value. Households often live hand to mouth and experience food shortages in the rainy season (Vo and Nguyen, 2000).

Life on water renders Sampan dwellers exposed to the vagrancies of the weather, which is increasingly unpredictable due to climate change. Vietnam is projected to be one of the nations most affected by climate change (Dasgupta et al., 2007; Kreft et al., 2016). The country as a whole, with a snaking coastline and much of the land area at a low elevation, is geographically vulnerable to flooding and sea level rise. In Hue Province specifically, salinity intrusion, changing rainfall patterns, shifts in the rainy season and heightened temperature extremes have all been attributed to climate change (CCAP, 2012). Particularly worrisome for Sampan dwellers are major storms (Sampan Interviews, 2015). Central Vietnam experiences annual storms and flooding, and winds and high floodwaters during such events have caused extensive damage to homes, property and infrastructure as well as significant loss of life (Christoplos et al., 2017). Climate change projections for the region suggest that major storms will increase in intensity (Potsdam Institute, 2013). The devastating impact of such events was tragically illustrated by a powerful typhoon that swept across Hue Province in 1985, leaving over 700 people either dead or missing and destroying property and livelihoods (United Nations in Viet Nam, 2014). Sampan dwellers near the coast were particularly hard hit (DaCosta and Turner et al., 2007; Sampan Interviews, 2015). This specific event and the specter of similar tragedies in the future, compounded by climate change, are used by officials to justify current settlements (Hue Women's Union, 2015; Phu Vang District, 2015).

The most recent Sampan sedentarization policies have been implemented since 2006 (Vinh Hien Commune, 2015). Resulting programs are communicated by officials as climate change adaptation and disaster risk reduction in line with the National Target Program on Response to Climate Change, approved in 2008 (DARD, 2015; Hai Duong Commune, 2015b; Hue Women's Union, 2015). Settlement under the program is mandatory (Quang Dien District, 2015), with one local official noting "we convinced people to move from the boats. But this is the policy/law. They have to move" (Hai Duong Commune, 2015a). In the settlement process, public land was allocated, surveyed, and divided into plots of 200m<sup>2</sup>, one of which was received by each household being settled. Infrastructure and utilities were provided (though sometimes delayed and of poor quality), as well as a grant of 14.5 million Vietnamese Dong (VND; roughly \$900 in 2007). Households were responsible for building their own houses (DARD, 2015; Hue People's Committee, 2014), and often borrowed from government banks or family to build houses of anywhere from 60 million to over 100 million VND (Sampan Interviews, 2015). They were then settled into newly-established areas, typically close to the shore, supporting their water-based livelihoods. Through these settlement initiatives, authorities can improve the education and awareness of previous Sampan dwellers along with providing safety and improved standards of living. The "province wants to give them a stable life" (Quang Dien

<sup>&</sup>lt;sup>2</sup> One Vietnamese study of settlements of Sampan dwellers, for example, describes the role of researchers thus: "researchers could act as a bridge, to disseminate the local government's view to villagers, and vice versa. The researchers collected information to exchange with local government on villagers' needs and desires" (Vo and Nguyen, 2000 p. 60). In addition, the Vietnamese Communist Party structures extend into universities.

<sup>&</sup>lt;sup>3</sup> For more information on Sampan dwellers lives and livelihoods, see Vo and Nguyen (2000) and DaCosta and Turner et al., 2007. There is unfortunately limited research on Sampan dwellers.

District, 2015) with "benefits for themselves and children [like] education, sanitation, [and] healthcare" (Hue Women's Union, 2015).

While the data collection focused on government officials' framings of the programs, nuance in the outcomes for households did emerge. Some households were reluctant to settle, concerned that their lives and livelihoods would be more challenging (Thuan An Township, 2015). However, a limited number of supplementary interviews with affected households indicate that the settlements were regarded positively (Sampan Interviews, 2015). One interviewee noted that after being informed of the program "the whole van [group of boats] couldn't sleep." Those already settled indicated that participation in the settlement scheme was willing. Many had previously wished to settle on land, but could not afford buying a plot of land for 70-100 million VND and spending roughly as much to build a house (Sampan Interviews, 2015). Receiving free land and a small subsidy through the program was thus serendipitous. This supports other research suggesting that many Sampan dwellers would like to settle on land under the right conditions (Vo and Nguyen, 2000). Households also noted that after moving to land, their economies were generally stable. While life on shore was accompanied by greater costs - building houses, paying utilities, etc. - some households were able to earn slightly more by engaging in supplementary livelihoods. People felt more secure and less vulnerable to storms; one interviewee commented that when living on boats, they "had to fight natural disasters by themselves," but that they now could receive support from the commune. Households described better access to services such as education and healthcare and improved social connections with other settled Sampan and land-based Kinh with whom there had previously been tensions (Sampan Interviews, 2015), echoing previous findings (DaCosta and Turner et al., 2007). Overall, the settlement scheme seemed to provide an improved standard of living and an opportunity for stability and safety that otherwise would have been outside of their grasp.

Approaching this initiative as a case of open-and-shut climate change adaptation provides a fairly positive picture. Sedentarizations fit easily into the global framing of adaptation, as they make a 'vulnerable' population seemingly more resilient to external climate change impacts. According to a United Nations (UN) sponsored report, these sedentarizations generally succeed in their aim to "protect the community from environmental shocks and stresses and to improve living conditions" (United Nations in Viet Nam, 2014, p. 21). Such accounts illustrate the 'here-and-now' tendency of the dominant adaptation framing, which fails to consider the production of vulnerability and the underlying historical and political dynamics of such initiatives. I illustrate this in the following section by providing a second, historicized account of sedentarizations through the framing of adaptation as a political arena.

## 3.2. Adaptation as a political arena

By shifting our focus to the political rationalities evident in the settlement of Sampan dwellers, exploring their history in the exercise of political power in what is now Vietnam, adaptation becomes not a universal, technocratic arena, but one that is highly political with long historical antecedents. Specifically, the program of sedentarization evidences long-standing political rationalities of *controlled mobility* as a fitting power and *integrating marginal peoples* as an ideal. The history of these are explored below, followed by an account of how they – rather than the 'travelling rationalities' of global climate change adaptation framings – inform government authorities' use of sedentarizations.

## 3.2.1. Fitting powers: controlled mobility

Government-controlled mobility has long been used as a political tool in Vietnam, mirroring broader trends of controlled mobility in Southeast Asia. Territorial expansion and migration have historically gone hand-in-hand across Southeast Asia, often through agricultural expansion with peasants functioning as a sort of 'territorial spearhead'

of central authorities. Such expansions have occurred in Burma, Thailand, the Philippines, Indonesia and Malaysia, as well as in Vietnam (De Koninck, 1996). They reflect the rationalities of the political authorities who drive them, illustrating how control of movement has been deemed to fall among the "fitting powers and duties" (Rose and Miller, 1992 p. 178) which authorities assume in their task of governing.

From the Red River Delta, which can be seen as a cradle of the Vietnamese civilization, authorities promoted southwards expansion from the 13th century. Increasing population density prompted the court to subjugate landless peasants as laborers that would clear and work uncultivated lowlands (Tana, 201, p. 325–326). In this way, the "surplus and drifting population of the time" (Tana, 2014, p. 326) was settled, population pressure eased and state territory expanded. The lands on the southern cusp of the Delta were settled by ethnic Kinh Vietnamese, the first step in a wave of southward expansion of the Kinh people and Vietnamese civilization along the coast of modern-day Vietnam to the Mekong Delta (Porter, 1993, p. 3). Towards the end of the 15th century, the Vietnamese emperor again pushed for southwards resettlement, granting incentives for landless peasants to clear and work the land and extending settlement policy to include prisoners and debtors (Biggs, 2012, p. 59-60). National leaders continued to harness migration, resettlement and sedentarization as tools for territorial expansion and the management of drifting or unruly populations.

Under communist rule, mobility was again instrumentalized to achieve political goals. In the communist North (from 1945) and subsequently the unified Socialist Republic of Vietnam (from 1976), "various schemes to reduce poverty, increase security, and redress perceived inequality have frequently involved confiscation, displacement, and resettlement" (Tai and Sidel, 201, p. 6). Access to land, along with other means of production, was initially controlled entirely by the early communist state. Residents were tied to the land and particular administrative areas through a registration system (ho khau) that granted access to rights and services, including goods through the subsidy system, employment, education, healthcare - even land for burial. In this way, population mobility was controlled through terms of access (Hardy, 2001). Related population policy was characterized by tools of "redistribution and rural resettlement," enabled by the high level of political control from central planning organs to local cadres (Dang et al., 1997, p. 318). Resettlements of the majority Kinh ethnic group, historically situated in lowland plains, were used as a political tool for a variety of purposes. Millions of lowland residents were resettled to the highlands, sparsely populated by minority groups, to clear and work the land and secure border areas, extending the reach of central authorities (Hardy, 2005, p. 235-243). Similar resettlements from the Red River Delta sought to relieve population pressure, and resettlements from urban centers in the south to rural New Economic Zones sought to relocate peasants who had fled or been moved to the city during the years of armed conflict (Carter, 2008; Dang et al., 1997). After reunification, a government target for the movement of 4 million people was set. While the actual number came to be closer to 1.5 million, the goal illustrates both the scale and political instrumentalization of mobility (De Koninck, 1996). In Vietnam, authorities have long regulated peasant mobility for various political ends, chiefly decreasing population density, extending territorial control and settling landless or shifting groups.

## 3.2.2. Fitting duties: integrating the margins

A related political rationality framing climate change adaptation in Vietnam is integrating marginal and minority people into mainstream social, economic and political structures. Powerful lowland authorities in Southeast Asia have long existed in "perennial tension" (Scott, 1998, p. 1) with highland minorities: "As long as there have been governments in Southeast Asia...there have been efforts by governing authorities to conquer, assimilate or incorporate ethnic minority groups" (Duncan, 2008, p. ix). Hill peoples have typically lived off swidden

agriculture and forest resources, moving between swidden areas, in contrast to lowlanders, who have generally sought to settle, work and own rice paddy. Mobility is thus a key difference between these cultures, and lowland authorities have sought to manage and integrate marginal peoples - ethnic minorities, landless peasants and otherwise mobile groups such as Sampan dwellers - by programs of settlement (De Koninck, 1996; De Koninck and Déry et al., 1997). These efforts are part of "a state's attempt to make a society legible, to arrange the population in ways that simplified the classic state functions of taxation, conscription, and prevention of rebellion" (Scott, 1998, p. 2). Such programs seek outcomes of ordering and control; through them, states gain valuable knowledge about their subjects and metrics to measure their population, territory and wealth. They also allow states to integrate marginal peoples into central planning visions as settlements can provide central authorities with simultaneously amplified and more minute control over their citizens.

From the mid-20th century, settlements were used to integrate ethnic minorities, who are often mobile and practice swidden agriculture, into dominant visions of development (De Koninck, 1996). The shifting swidden agriculture practiced by many highland groups was seen as incompatible with central authorities' vision of development through agricultural intensification. Related portrayals of highland minorities as uneducated, undeveloped and environmentally detrimental were forged in reference to this (Duncan, 2004; Lentz, 2011; McElwee, 2008). Settlements, in turn, have been communicated as 'solidarity as socialists,' integrating minorities into the new socialist state (Michaud, 2009). Such integration contains a strong civilizing mission (Duncan, 2004), with minorities expected to adopt 'socialist thinking,' seen to eradicate detrimental mindsets and practices (McElwee, 2008, p. 195). However, what authorities communicated as socialist thinking largely reflected the norms and practices of the majority Kinh ethnic group, suggesting that efforts to integrate minorities into socialism were instead efforts to disseminate perceptions and behaviors consistent with Kinh culture:

"The least 'socialist man' could do for 'traditional man' – in the words of Vietnamese ethnologists – was to help him relinquish his simplicity and reach the superior levels of lowland civilization as quickly as possible. Vigorous plans for sedentarization, collectivization and industrialization were implemented against an ideological background prioritizing the undividable unity of country and nation with active promotion of Kinh culture." (Michaud, 2009, p. 32) Such interventions extended to other mobile groups as well. After reunification, the Vietnamese government "established a policy of planning and relocation of people and stabilization and development of the national economy...to settle nomadic communities in Vietnam" (Vo and Nguyen, 2000, p. 56).

Resettlement of mobile peoples was thus a policy focus from the genesis of the new state and provided a manner in which to reorganize patterns of production and settlement to those deemed "socially desirable" (Dang et al., 1997, p. 318). This was buttressed by the "highly centralized character of Vietnam's planned economy before 1986 [that] provided the government with a strong instrument for directly influencing migration flows and regulating them" (Dang et al., 1997, p. 318). Results of such programs have been ambiguous. Many of those resettled abandoned the schemes due to hardship, and for those minorities that stuck with the schemes, integration into mainstream cultural and agricultural practices has often left them on the margins of development (Chính, 2008; Friederichsen and Neef, 2010). Integration of minority groups into the socialist mainstream can thus be seen as "an ambivalent process that may well contain forces of marginalization and have high social and ecological costs, in short 'maldevelopment'" (Friederichsen and Neef, 2010, p. 565).

These two political rationalities – controlling mobility and integrating the margins – become strands in the framing of adaptation as a political arena. This framing is not self-evident. Political "problematizations…do not speak for themselves. They must always be

individuated and conceptualized in particular ways" (Rose, 1999, p. 21). Climate change adaptation in Vietnam draws heavily on existing rationalities. These entail particular understandings of what or who is to be adapted and the role and tools political authorities adopt – in this case the marginal and mobile Sampan dwellers and government-controlled sedentarization.

### 3.3. Political rationalities and sedentarization as adaptation

Viewing climate change adaptation as a political arena captures the historical and political antecedents of current 'adaptation,' Specifically, historical dynamics of mobility and marginalization are deeply imbricated in current adaptation settlements of Sampan dwellers. During the Vietnamese 'march south' there were some people from the Kinh ethnic majority that could or did not lay claim to land and came to live on boats. How or why this happened is unknown. One author notes that the explanation "varies according to individuals who are trying to solve the mystery of the dwellers' origins in such a way as to suit the latter's own interests" (Bertrand, 1995, p. 120). More recently, the communist government's restrictive land policies have made it more difficult for Sampan dwellers to gain access to land. These have eased over time and some households have sought to buy and settle on land. However, the continued landless existence of many Sampan dwellers has been partially produced by terms of land access, yet remains a cause for their subsequent marginalization.

As with other mobile populations, Sampan dwellers have existed on the peripheries of mainstream Vietnamese society, and they are generally marginalized and looked down upon (Bertrand, 1995; DaCosta and Turner et al., 2007; Vo and Nguyen, 2000). Vietnamese scholastic publications and accounts from government officials describe Sampan dwellers as uneducated, uncivilized and in need of active integration. According to the Head of Hue Province's Women's Union, which supports the settlement process, Sampan dwellers are seen to "lack education, be at risk of natural disasters, and cause environmental problems" (Hue Women's Union, 2015). As she wrote her master's thesis on the subject, this can be viewed as an informed opinion, and it is widely shared among government officials. District level officials noted that "when still on the boats, they can't be managed or attend school" (Quang Dien District, 2015) and that they "focus on earning money and less on education for children, so have low education levels...[and]... cannot accept information" (Phu Vang District, 2015). This disparaged 'focus on earning money' disregards the precarious existence of many Sampan households, and the difficulty of investing in new skills and livelihoods (Sampan Interviews, 2015). The potential loss or reduction in fishing revenue from attending livelihood trainings could easily translate into hunger for the poorest Sampan households.

Sampan dwellers' lack of formal (state-provided) education and the 'awareness' and 'understanding' it generates is also a widely-shared concern among officials. Previous Sampan dwellers themselves express interest in education, which seems largely to have been limited by access to schools (Sampan Interviews, 2015). Officials worry that without education people cannot be managed or "follow the policy and programs of the Party" as one common refrain puts it, though have generally not attempted to provide access to education compatible with Sampan dwellers' mobile lifestyles. They view uneducated Sampan dwellers as marginal and uncivilized. A related perspective from Vietnamese scholars asserts that Sampan dwellers "have not kept pace with land-based society...Their cultural and economic life is also underdeveloped relative to land-based Vietnamese...and as a consequence, they are always scorned by others" (Vo and Nguyen, 2000, p. 55). Even the Vietnamese term for 'living on boats' is considered derogatory. There is thus a historical divide between Sampan dwellers and Kinh land dwellers (Vo and Nguyen, 2000), what one previous Sampan dweller referred to simply as "a distance" (Sampan Interviews, 2015). It mirrors that between Kinh and highland minorities, which is also built up around portrayals of highlanders as uncivilized and environmentally

detrimental, and is essential for understanding and interrogating current settlement programs described as climate change adaptation.

Settlement is presented as integrating and civilizing previous Sampan dwellers, a focus that easily competes with adaptation in official accounts. An earlier resettlement policy, for instance, is described as providing stability and solving 'environmental problems' stemming from the perceived volatility of livelihoods of nomadic and unsettled groups (Vo and Nguyen, 2000). More recent settlements and subsequent community activities are seen as helping previous Sampan dwellers to "improve the culture in their community so that they are able to quit all harmful habits and crimes" (Hong et al., 2013, p. 305). Through current settlements, the "province wants to give them a stable life with better education" (Ouang Dien District, 2015), and previous Sampan dwellers receive "benefits for themselves and children [like] education, sanitation, healthcare" (Hue Women's Union, 2015). While in one commune, children already attend a school located by the water, through settlements "the older people increase their awareness" (Hai Duong Commune, 2015b). Settlements in officials' accounts help integrate marginal people into state planning and norms through stabilization and education, and officials perceive the latest rounds of sedentarization as meeting these goals. One official notes that "now that they are stable, they accept information and they follow the policies similarly to the people that have lived there for a long time" (Phu Vang District, 2015). Another describes that after being moved, "their perception increases, which is very important, but not [included] in the policies...when their awareness is increased and their education is increased, it is easier to talk with them about changes, ask them to do things. They have a better understanding" (Huong Tra Town, 2015).

These rationalities can be traced back in time. Initial sedentarizations from 1976 to 1979 were part of the broader post-independence push to integrate marginal people, yet after they were settled, many gradually returned to life on boats for a range of reasons. With their livelihoods dependent on fishing, living on land was restrictive. Fishing ideally requires the flexibility to fish at suitable times and locations. Many, for instance, sometimes fish at night, meaning that adults would have to leave children and the elderly behind on land, where they are vulnerable to theft of their meager possessions (Bertrand, 1995; Vo and Nguyen, 2000). In addition, the plots of land allocated to the households have historically been quite small (50-120m<sup>2</sup>) when considering the size of many Sampan families (ibid). This area quickly becomes inadequate when the younger generation starts their own families, and growing pains often force young families to return to live on boats (Sampan Interviews, 2015). This problem is recognized by government officials (Phu Loc District, 2015), and current settlement programs include somewhat larger plots of 200m<sup>2</sup>. In addition, it can be difficult to make ends meet when on land, where there are greater costs (Sampan Interviews, 2015; Vo and Nguyen, 2000). Add to this the sometimes abysmal infrastructure provided in settlement areas, in one instance a combination of no toilets or drainage, and tensions with other land dwellers and officials, and the challenges of life on land can come to outweigh the benefits (Vo and Nguyen, 2000).

The 1985 typhoon provided a new catalyst for enacting settlement programs (Nguyen Xuan Hong et al., 2013; Sampan Interviews, 2015). Yet again, however:

"...the policy was not strong enough. Sampan people settled onto land, but didn't like the new life and returned to their boats. After that, the province understood that they had to stop this problem. From 2010, the provincial level decided that they have to give this more attention. [Now] Settlement is compulsory. There are now 70 locations of Sampan settlements across the province." (Hue Women's Union, 2015)

This account brushes only the surface of the larger pattern which emerges. Settlements in the late 1970's and late 1980's were just the first links in a chain of settlements laid out in provincial policies from 1993, 1999, 2005, 2009 and 2010 (Hong et al., 2013; Vinh Hien

Commune, 2015). A clear pattern of living on boats punctuated by periods of settlement emerges in the history of the Sampan dwellers of Hue Province. While officials have implemented repeated sedentarizations, targeting those who abandoned earlier settlements or had not yet been settled, each initiative has contributed to a greater number of Sampan dwellers being permanently settled onto land. Thus, when Sampan dwellers of Hue Province have gained access to land, it has often been controlled through targeted sedentarization programs.

The most recent sedentarization initiative has been intended as a final push to settle all remaining Sampan dwellers. Though labelled as adaptation by local officials, these initiatives descend directly from a history of controlled mobility and civilizing the margins in Vietnam. Controlled mobility is presented in Hue Province's Climate Change Action Plan (CCAP) as simultaneously an adaptation tool and an opportunity for integration as "combining the traditions together by migration leads to the cultural mix of the ethnic brothers" (CCAP, 2012, p. 107). Such mobility is credited with creating a "civilized lifestyle and awareness" (CCAP, 2012, p. 134) for areas of climate-related migration. This illustrates how adaptation solutions of controlled movement are seen by government officials to serve broader goals of integration and civilizing outcomes, reflecting continued potency of these historical political rationalities. Settlement as a measure to improve boatdwelling people's 'understanding' and 'perception' was clearly communicated by officials across levels as a means to integrate them into state planning and mainstream society. In addition, these purported climate-related settlements were seen to solve environmental degradation created by Sampan dwellers, again echoing the arguments used for settling swidden agriculturalists. A final link to broader goals of integrating marginal peoples can be found in the adaptation program itself, which also targets highland people affected by climate change in the form of climate-related natural disasters, such as landslides (DARD, 2015). While Kinh land dwellers affected by coastal or river bank erosion have also been moved under the program, these instances are assiduously differentiated by government officials as re-settlements rather than settlements. Current Sampan sedentarizations are the latest expression of historic political rationalities of controlled movement as a fitting power and integrating marginal people as an ideal or goal.

## 4. Reframing adaptation

As illustrated by these two accounts of sedentarization – one viewed through the dominant climate change adaptation framing and the other viewed through adaptation as a political arena – adaptation framings are not self-evident. They are produced and contingent. Interrogating them is critical as they determine what adaptation entails, circumscribing our understandings of and responses to climate change.

The dominant adaptation framing is universalizing and technocratic. The travelling rationalities it is built on produce a 'here and now' focus, divorcing current adaptation efforts from historical political rationalities (Taylor, 2015, p. 6-7). The dehistoricized and depoliticized tendencies of adaptation have been repeatedly documented in academic literature (Bruun, 2012; Ribot, 2010, p. 122-139; Taylor, 2015). It is also evident in the case of Sampan settlements. While literature on these settlements is limited, that which does exist is remarkably silent on the highly political nature of the sedentarizations. One UN-sponsored report and a scholarly article on the subject both place the initial settlements of Sampan dwellers as following the destructive 1985 typhoon (DaCosta and Turner et al., 2007; United Nations in Viet Nam, 2014). This supports the presentation of sedentarizations as a response to environmental risks: "a government instrument to stabilize livelihoods of people in disaster prone areas" (United Nations in Viet Nam, 2014, p. 10) or an effort to "decrease their vulnerability to such events" (DaCosta and Turner et al., 2007, p. 190).

These accounts overlook the longer political history of sedentarization of Sampan dwellers and obscure their integrating impetus. This oversight is alarming not only because efforts of integration are highly

relevant to current adaptation initiatives, but also because their presence is difficult to either overlook or dismiss. There is an easily accessible, established literature around integration and civilizing interventions in Vietnam, generally of mobile and marginal peoples like the Sampan dwellers. Furthermore, government officials openly and repeatedly communicate these goals. The production of vulnerability also remains murky. Despite the fact that the UNDP report examines how the Vietnamese household registration system "creates barriers" (United Nations in Viet Nam, 2014, p. 2) to access, it fails to connect that to the marginal existence of Sampan dwellers. The absence of such considerations illustrates how framing adaptation as a response to environmental challenges glosses over crucial historical and political dvnamics. Such accounts endorse and propagate dominant adaptation framings and their ontological assumptions of separate social and environmental spheres, naturalizing this particular, yet quite hegemonic view of climate change adaptation.

The UN-sponsored report and scholarly article discussed above are also critical. Yet as with much of the critical literature on climate change adaptation, they work within the dominant framework (Bassett and Fogelman, 2013). This is evident in their disregard to the antecedents and framing of adaptation in favor of critical engagement with the implementation and results of such initiatives. The UN-sponsored report notes that the process of resettlement can be "problematic" (United Nations in Viet Nam, 2014, p. 23) and the outcomes "mixed" (United Nations in Viet Nam, 2014, p. 21). It describes how current resettlements may exacerbate vulnerability and how their success depends on supportive socio-economic conditions (ibid). The academic article looks specifically at livelihoods and social capital and offers useful insights into the challenges and shortcomings of sedentarizations on these fronts (DaCosta and Turner et al., 2007). However, they take their point of departure in a problematic framework and contribute to its naturalization by leaving the broader framing intact. This does not detract from the highly relevant work they do to highlight the challenges of implementing adaptation interventions.

And yet more is needed. By reframing adaptation through the problematics of government approach, we de-naturalize dominant framings (following calls from, for example, Eguavoen et al., 2013; Swyngedouw, 2010) and are able to examine adaptation as a political arena. Doing this, by tracing the political rationalities at play, addresses multiple fundamental critiques of adaptation. First, it historicizes and politicizes. Tracing political rationalities over time reveals how political authorities actively frame adaptation in reference to existing goals and interests, shaping who or what adaptation targets and how. This exposes how current socio-economic and ecological configurations are politically produced and allows us to speak to a second critique, that vulnerability is produced. The Sampan dwellers were not only marginalized culturally and socially, but also through terms of access determined by political authorities. Their exposure to environmental risks was therefore not a given, but the result of a series of political choices in a country where policy is law, the government owns all land, and programs of settlement and resettlement have moved millions. Vulnerability to climate change is therefore a misnomer. People are vulnerable to political and social processes, which largely determine their exposure to natural or anthropogenic climate events. Thirdly, reframing adaptation through the problematics of government approach highlights the emic political rationales framing adaptation. This should not be a new lesson. International development literature has long acknowledged that "'global' policy ideas...get unravelled as they are translated into the different interests of the social/institutional worlds and local politics" (Mosse, 2011, p. 3). Critical literature on adaptation already calls for an increased focus on emic voices (Eguavoen et al., 2013). Yet, 'emic' is not necessarily positive. This article and other recent work document how emic national and local interests shape adaptation framings and practice towards political ends (Artur and Hilhorst, 2012; Funder et al., 2018).

More fundamentally, reframing demonstrates that climate change

adaptation is not self-evident. It is driven by historical and political particularities, and the resulting framing determines what adaptation supposes and seeks to address - in this case a central role for political authorities, a top-down intervention and the integration of a marginal population through physical relocation. This does not mean that 'travelling rationalities' do not factor in. In Vietnam, the political authorities framing adaptation draw on global climate change adaptation framings, linking up to these discourses and associated international funding flows (Zink, 2013, p. 140-146). Yet an analysis of the political rationalities behind adaptation allows us to question dominant framings and their congruence with adaptation policy and practice. It allows us to view adaptation differently, not as a coherent or fixed field of intervention, and not as a given, but as an evolving political arena intersected and populated by a range of interests and ideas that have very little to do either with climate change or adaptation to it (Artur and Hilhorst, 2012; Eriksen et al., 2015; Funder et al., 2018).

#### 5. Conclusion

In his book *Powers of Freedom*, Nikolas Rose calls for 'perspectivism', which involves "introducing a critical attitude towards those things that are given to our present experience as if they were timeless, natural, unquestionable" (1999, p. 20). This article is an exercise in perspectivism. It reframes climate change adaptation through a problematics of government approach (Rose and Miller, 1992), tracing the political rationalities that frame adaptation as a political arena and inform adaptation practice. This provides room for critical thought by denaturalizing climate change adaptation and rendering it "amenable to *our* thought and action, in the sense of us being able to count its cost and think of it being made *otherwise*" (Rose, 1999, p. 20, original emphasis). The case of sedentarization as adaptation illustrates how adaptation framings and practice draw on existing, emic rationalities with long histories and political genealogies. These rationalities frame understandings of what or who should be adapted and how.

Viewing adaptation as a political arena puts us on a conceptual collision course with dominant global framings. First, it historicizes and politicizes framings of adaptation. Second, it exposes how vulnerability is produced by particular political interventions. Third, it identifies how emic rationalities frame current adaptation initiatives, rather than assuming that global approaches are universally applied in practice. These things fundamentally challenge that "disarmingly simple concept" (Taylor, 201, p. 56) of adjustment to an external stimuli and allow us to reflect on it and count its cost. By overlooking the reality of climate change adaptation on the ground - the centrality of historical dynamics and political interests - we risk propagating the dynamics that have contributed to current vulnerability and inequality of power and access. In addition, it precludes fundamental consideration of the scope, targets and tools of adaptation that particular framings entail. While it may seem misguided in the face of palpable need for adaptation to stop and consider our conceptualizations, that is exactly what we must do.

Ultimately, we must reassess the underpinnings of adaptation – those framings that circulate within universities, non-governmental organizations, think tanks and global governance institutions and networks and are exported around the world. We must acknowledge that adaptation is an act of governing people, societies, economies and environments and is fundamentally an arena of political struggle framed heavily by domestic dynamics. This suggests that 'climate change adaptation' may not be useful as an academic concept, especially when dominant global framings are accepted without reflection or critique. Instead, we must actively de-frame dominant adaptation framings, making explicit their origins and implications, and re-frame adaptation in light of the situated politics and histories from which it emerges.

#### Acknowledgements

I would like to thank Mikkel Funder and Christian Lund for their comments on an earlier draft of this article, as well as the feedback from anonymous reviewers. The research for this article was carried out through funding from the Danish Institute for International Studies and the University of Copenhagen, though these funders had no role in study design, data collection, writing or submission of this research. I would like to express my deep gratitude to those who shared their time, knowledge and experiences with me during my fieldwork. I would also like to thank my colleagues at Hue University of Agriculture and Forestry as well as my translators Nga Thi Ha and Le Thi Hong Phuong, without whom this research would not have been possible.

#### References

- Agrawal, A., 2010. Local institutions and adaptation to climate change. Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World. World Bank, Washington DC, pp. 173–198.
- Arnall, A., 2014. A climate of control: flooding, displacement and planned resettlement in the Lower Zambezi River valley, Mozambique. Geogr. J. 180 (2), 141–150.
- Artur, L., Hilhorst, D., 2012. Everyday realities of climate change adaptation in Mozambique. Global Environ. Change 22 (2), 529–536.
- Bassett, T.J., Pogelman, C., 2013. Déjà vu or something new? The adaptation concept in the climate change literature. Geoforum 48, 42–53.
- Bertrand, D., 1995. The sampan dwellers of the Perfume River and lagoons at Hue. Southeast Asian J. Soc. Sci. 23 (2), 119.
- Bierschenk, T., de Sardan, J.-P.O., 2014. States at Work: Dynamics of African Bureaucracies. Brill.
- Biggs, D., 2012. Quagmire: Nation-Building and Nature in the Mekong. University of Washington Press, Delta Seattle.
- Bruun, O., 2012. Sending the right bill to the right people: climate change, environmental degradation, and social vulnerabilities in central Vietnam. Weather Climate Society 4 (4), 250–262.
- Carter, J.M., 2008. Inventing Vietnam: The United States and State Building, 1954-1968.
  Cambridge University Press.
- CCAP. (2012). Action Plan to respond to climate change in Thua Thien Hue by 2020 approved by Thua Thien Hue People's Committee. Retrieved from Thua Thien Hue.
- Chính, N.V., 2008. From Swidden cultivation to fixed farming and settlement: effects of Sedentarization Policies among the Kmhmu in Vietnam. J. Vietnamese Stud. 3 (3), 44–80
- Christoplos, I., Ngoan, L.D., Sen, L.T.H., Huong, N.T.T., Lindegaard, L.S., 2017. The evolving local social contract for managing climate and disaster risk in Vietnam. Disasters 41 (3), 448–467.
- DaCosta, E., Turner, S., 2007. Negotiating changing livelihoods: the sampan dwellers of Tam Giang Lagoon, Việt Nam. Geoforum 38 (1), 190–206.
- Dang, A., Goldstein, S., McNally, J., 1997. Internal migration and development in Vietnam. Int. Migr. Rev. 312–337.
- DARD. (2015). Interview with Head of Economic Cooperation and Rural Development Section, Department of Agriculture and Rural Development. February 6, 2015. Interviewer: Lily Salloum Lindegaard. Translator: Le Thi Hong Phuong.
- Dasgupta, S., Laplante, B., Meisner, C., Wheeler, D., Yan, J., 2007. The impact of sea level rise on developing countries: a comparative analysis. Policy Research Working Paper No. 4136. World Bank, Washington, DC.
- De Koninck, R., 1996. The peasantry as the territorial spearhead of the state in Southeast Asia: the case of Vietnam. Sojourn: J. Soc. Issues Southeast Asia 231–258.
- De Koninck, R., Déry, S., 1997. Agricultural expansion as a tool of population redistribution in Southeast Asia. J. Southeast Asian Stud. 28 (1), 1–26.
  Durcan, C. B. 2004. Legislating modernity, among the magnificial Inc. Durcan, C. B.
- Duncan, C.R., 2004. Legislating modernity among the marginalized. In: Duncan, C.R. (Ed.), Civilizing the Margins: Southeast Asian Government Policies for the Development of Minorities. Cornell University Press, Ithaca, New York, pp. 1–23.
- Duncan, C.R., 2008. Introduction. In: Duncan, C.R. (Ed.), Civilizing the Margins: Southeast Asian Government Policies for the Development of Minorities. NUS Press, Singapore, pp. ix–xx.
- Eguavoen, I., Schulz, K., de Wit, S., Weisser, F., Müller-Mahn, D., 2013. Political Dimensions of Climate Change Adaption: Conceptual Reflections and African Examples. Retrieved from Bonn.
- Eriksen, S.H., Nightingale, A.J., Eakin, H., 2015. Reframing adaptation: The political nature of climate change adaptation. Global Environ. Change 35, 523–533.
- Foucault, M., 1991. Governmentality. In: Gordon, C., Burchell, G., Miller, P. (Eds.), The Foucault Effect: Studies in Governmentality. University of Chicago Press, Chicago, pp. 87–104.
- Friederichsen, R., Neef, A., 2010. Variations of late socialist development: integration and marginalization in the northern uplands of Vietnam and Laos. Eur. J. Dev. Res. 22 (4), 564–581.
- Funder, M., Mweemba, C., Nyambe, I., 2018. The politics of climate change adaptation in development: authority, Resource control and state intervention in rural Zambia. J. Dev. Stud. 54 (Issue 1), 30–46.
- Gupta, A., 2012. Red Tape: Bureaucracy, Structural Violence, and Poverty in India. Duke University Press.
- Hai Duong Commune. (2015). Interview with Hai Duong Commune, Huong Tra Town,

- Hue Province. February 5, 2015. Interviewer: Lily Salloum Lindegaard. Translator: Le Thi Hong Phuong.
- Hai Duong Commune. (2015). Interview with leader and land management official of Hai Duong Commune, Huong Tra Town, Hue Province. February 5, 2015. Interviewer: Lily Salloum Lindegaard. Translator: Le Thi Hong Phuong.
- Hardy, A., 2001. Rules and resources: negotiating the household registration system in Vietnam under reform. Sojourn: J. Soc. Issues Southeast Asia 16 (2), 187–212.
- Hardy, A.D., 2005. Red Hills: Migrants and the State in the Highlands of Vietnam, vol. 93 NIAS Press, Copenhagen.
- Hue People's Committee, 2014. Regulations on Compensation, Support and Resettlement in Cases of State Land Acquisition in Thua Thien Hue Province.
- Hue Women's Union. (2015). Interview with Vice Director of Thua Thien Hue Province's Women's Union. April 4, 2015. Interviewer: Lily Salloum Lindegaard. Translator: Nga
- Huong Tra Town. (2015). Interview with Town Agriculture and Economics Department Officials. February 2, 2015. Interviewer: Lily Salloum Lindegaard. Translator: Le Thi Hong Phuong.
- IPCC, 2007. IPCC Assessement Report 4 Glossary. Retrieved from https://www.ipcc.ch/publications\_and\_data/ar4/wg2/en/annexessglossary-a-d.html.
- Kreft, S., Eckstein, D., Melchior, I., 2016. Global Climate Risk Index 2017: Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2015 and 1996 to 2015. Germanwatch Nord-Süd Initiative eV.
- Lentz, C.C., 2011. Mobilization and state formation on a frontier of Vietnam. J. Peasant Stud. 38 (3), 559–586.
- Li, T.M., 2007. The Will to Improve: Governmentality, Development, and the Practice of Politics. Duke University Press, Durham and London.
- Lipsky, M., 2010. Street-level bureaucracy. Dilemmas of the Individual in Public Service, 30th ann. ed. Russell Sage Foundation.
- Marino, E., Ribot, J., 2012. Special Issue Introduction: Adding Insult to Injury: Climate Change and the Inequities of Climate Intervention. Elsevier.
- McElwee, P., 2008. Becoming socialist or becoming Kinh? Government policies for ethnic minorities in the socialist republic of Viet Nam. In: Duncan, C.R. (Ed.), Civilizing the Margins: Southeast Asian Government Policies for the Development of Minorities. NUS Press, Singapore, pp. 182–213.
- Michaud, J., 2009. Handling mountain minorities in China, Vietnam and Laos: from history to current concerns. Asian Ethnicity 10 (1), 25–49.
- Mosse, D., 2011. Introduction: the anthropology of expertise and professionals in international development. In: In: Mosse, D. (Ed.), Adventures in Aidland: The Anthropology of Professionals in International Development, vol. 6 Berghahn Books.
- Hong, Nguyen Xuan, Nguyen Hoang Kha, Tu, Nhi, TranThiPhuong, Hung, NgoQuang, Hanh, DaoDuy, Liem, Tran Ngoc, 2013. Hue City's Sampan people in settlement and Resettlment Areas. In: Le Van An, U., Tanaka, Kobayashi, H. (Eds.), Project Report on Local Livelihood Diversification for Vulnerable People in Natural Disaster Prone Areas. Agricultural Publishing House, Hanoi, Vietnam.
- Pelling, M., 2011. Adaptation to Climate Change: From Resilience to Transformation. Routledge, New York.
- Phu Loc District. (2015). Interview on resettlements with Office of Natural Resources and Environment, Phu Loc District, Hue Province, March 11, 2015.
- Phu Vang District. (2015). Interview with officials in charge of agriculture and of climate change and resettlement in Phu Vang District, Hue Province, February 5, 2015.
- Porter, G., 1993. Vietnam: The Politics of Bureaucratic Socialism. Ithaca, Cornell University Press.
- Potsdam Institute, 2013. 4° Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience. Retrieved from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/06/14/000445729\_20130614145941/Rendered/PDF/784240WP0Full00DDCONF0to0June19090L.pdf.
- Quang Dien District. (2015). Interview with Disaster Risk Reduction Official, Agriculture and Rural Development Office, Quang Dien Distict, Hue Province, April 24, 2015.
- Ribot, J.C., 2010. Vulnerability does not fall from the Sky: toward multi-scale pro-poor climate policy. Vol. Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World. World Bank Publications.
- Rogers, S., Xue, T., 2015. Resettlement and climate change vulnerability: evidence from rural China. Global Environ. Change 35, 62–69.
- Rose, N., 1999. Powers of Freedom: Reframing Political Thought. Cambridge University Press, Cambridge.
- Rose, N., Miller, P., 1992. Political power beyond the state: problematics of government. Br. J. Sociol. 173–205.
- Sampan Interviews. (2015). Interviews with resettled sampan dwellers of Thua Thien Province.
- Scott, J., 1998. Seeing Like a State: How Well-Intentioned Efforts to Improve the Human Condition Have Failed. Yale University Press, New Haven.
- Scott, S., Miller, F., Lloyd, K., 2006. Doing fieldwork in development geography: research culture and research spaces in Vietnam. Geogr. Res. 44 (1), 28–40.
- Swyngedouw, E., 2010. Apocalypse forever? Theory Culture Soc. 27 (2–3), 213–232.Swyngedouw, E., 2013. The non-political politics of climate change. ACME Int. J. Crit. Geogr. 12 (1), 1–8.
- Tai, H.-T.H., Sidel, M., 2012. Introduction. In: In: Tai, H.-T.H., Sidel, M. (Eds.), State, Society and the Market in Contemporary Vietnam: Property, Power and Values, vol. 39. Routledge, pp. 1–11.
- Tana, L., 2014. Towards an environmental history of the eastern Red River Delta, Vietnam, c. 900-1400. J. Southeast Asian Stud. 45 (3), 315.
- Taylor, M., 2015. The political ecology of climate change adaptation: livelihoods, agrarian change and the conflicts of development. New York. Routledge.
- Thuan An Township, (2015). Interview with Leader of Thuan An Township, Phu Vang District, Hue Province, February 4, 2015.

United Nations in Viet Nam, 2014. Migration, Resettlement and Climate Change in Viet Nam: Reducing Exposure and Vulnerabilities to Climatic Extremes and Stresses Through Spontaneous and Guided Migration. Retrieved from Viet Nam: http:// www.undp.org/content/dam/vietnam/docs/Publications/Migration%20& %20Climate%20change%20-%20Eng.pdf. .

Vinh Hien Commune. (2015). Interview with Vice Head of Commune People's

Committee, Vinh Hien Commune, Phu Loc District, Hue Province, April 27, 2015.

Vo, T.H., Nguyen, H.T., 2000. Settlement of Sampan people. In: Brzeski, V.J., Newkirk, G.F. (Eds.), Lessons from the Lagoon: Research Towards Community Based Coastal Resources Management in Tam Giang Lagoon, Viet Nam. Coastal Resources Research Network, Dalhousie University, Halifax, Canada.

Zink, E., 2013. Hot science, high water: assembling nature. Society and Environmental Policy in Contemporary Vietnam. NIAS Press, Copenhagen, Denamrk.